[Name of Document] ABSTRACT

[Abstract]

[Object] To achieve a high recognition rate even under an environment where plural types of noise exist.

[Solving Means] Noise is eliminated by the spectral subtraction noise elimination method (referred to as the SS method) from each of speech data on which different types of noise are superposed, and acoustic models corresponding to each of the noise types are created based on the feature vectors obtained by analyzing the features of each of the speech data which have undergone the noise elimination. When a speech recognition is performed, a first speech feature analysis is performed on speech data to be recognized, and it is determined whether the speech data is a noise segment or a speech segment. When a noise segment is detected, the feature data thereof is stored (steps s1 to s3), and when a speech segment is detected, the type of the noise is determined based on the feature data which has been stored, and a corresponding acoustic model is selected based on the result thereof. The noise is eliminated by the SS method from the speech data to be recognized, and a second feature analysis is performed on the speech data which has undergone the noise elimination to obtain a feature vector to be used in speech recognition (steps s6 and s7).

[Selected Figure] Fig. 2